

# **The Electronic Waste Regulations**

**Manufacturer Requirements for Covered Electronic Devices  
Alternative Management Standards for Recycling Universal Waste Electronic Devices**

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# Electronic Waste Regulations

## BACKGROUND:

- 2004 - DTSC adopted emergency regulations pursuant to SB 20:
  - Manufacturer notification requirements for covered electronic devices as defined in SB 20.
  - Listed in appendix X of title 22, chapter 11:
    - Televisions and other CRT containing devices;
    - Computer monitors containing CRTs;
    - Laptop computers with LCD screens;
    - LCD containing desktop monitors.
  - Alternative management standards (AMS) under the universal waste regulations for treating (recycling) electronic devices that are hazardous wastes [universal waste electronic devices (UWEDs)].

# Electronic Waste Regulations

## **BACKGROUND:**

- 2005 - DTSC adopted emergency regulations pursuant to SB 50:
  - January 2005: Amended the manufacturer notification requirements to clarify contents of the notification.
  - April 2005: Added two (2) categories of devices to the list of covered electronic devices in appendix X of title 22, chapter 11:
    - LCD televisions
    - Plasma televisions

# Electronic Waste Regulations

## DTSC FINAL UWED REGULATIONS:

- DTSC proposes to finalize the three emergency regulations in this single package that will:
  - establish the contents and timeframe for submittal of the manufacturer notification;
  - identify the electronic devices that DTSC has identified as covered electronic devices;
  - provide alternative management standards for treating and recycling all UWEDs (CEDs are a subset of UWEDs)

# Electronic Waste Regulations

## DTSC FINAL REGULATIONS:

- Additional concepts for the proposed regulation package are:
  - Adopt maximum concentration values in CEDs in accordance with SB 50's Restriction of Hazardous Substances (RoHS) provision (new section 66260.202); and,
  - Reformat and consolidate the waste management standards for handling and treating universal wastes [title 22, California Code of Regulations, chapter 23 (Universal Waste Regulations)].

# Electronic Waste Regulations

## Proposal Overview (section by section)

Manufacturer Notification: Section 66260.201

- Specifies the content of notice to retailers that identify the devices that are covered under SB 20/50.
- ***No substantive changes to existing emergency regulation.***

List of Covered Electronic Devices: 66260.201 and Chapter 11 Appendix X

- Provides lists of electronic devices that are presumptive hazardous wastes **AND** are covered under SB 20/50.
- ***No substantive changes to existing emergency regulation;*** proposal clarifies that lists are for electronic devices that meet either requirements. (i.e., electronic devices that are hazardous wastes when discarded or that meet the statutory definition of a CED, but are not yet wastes)

# Electronic Waste Regulations

## **RoHS Requirement: 66260.202**

- Fulfills DTSC's HSC section 25214.10 obligation
  - (a) No person shall sell or offer for sale in California, a covered electronic device that contains concentrations of heavy metals exceeding the maximum concentration values published in the Official Journal of the European Union on 18 August 2005 adopting the Commission Decision amending Directive 2002/95/EC of the European Parliament and of the Council of the European Union for the purpose of establishing the maximum concentration values for certain hazardous substances in electrical and electronic equipment.
  - (b) In determining the concentrations of metals for compliance with subsection (a) of this section, DTSC shall not consider any cadmium, chromium, lead, or mercury or any component containing those metals, which has been exempted by Directive 2002/95/EC or by any TAC decision as published in the Official Journal of the European Union.

# Electronic Waste Regulations

## **RoHS Requirement: 66260.202**

- DTSC requests your comments now on the proposed text.
- DTSC plans on addressing enforcement at a later date, if needed.



# **Electronic Waste Regulations**

## **Chapter 23**

### **Standards for Universal Waste Management**

Chapter 23 has be revised and reformatted to simplify and clarify the requirements for UW handlers and recyclers.

# Electronic Waste Regulations

## Current Chapter 23

- Article 1 – General
- Article 2 – Small Qty Handler\* \*\* \*\*\*
- Article 3 – Large Qty Handler\* \*\* \*\*\*
- Article 4 – Transporter Rqmts. \*\*
- Article 5 – Destination Facility Rqmts.
- Article 6 – Import Requirements
- Article 7- CRT Material Handler\* \*\* \*\*\*

- \*Each of these articles are structured identically contain virtually identical language (except notification and training requirements for handlers of certain UW).
- \*\* Each of these articles contain requirements for exporting universal wastes
- \*\*\* Each of these articles contain requirements for authorized treatment; in some instances the requirements are virtually identical.

## Proposed Chapter 23

- Article 1 – General
- Article 2 – Reserved
- Article 3 – Handler Standards\*
- Article 4 – Export and Import \*\*
- Article 5 – Transporter Requirements
- Article 6 – Destination Facility Rqmts.
- Article 7 – Authorized Treatment \*\*\*

- \*Consolidates and relocates all universal waste handler standards in the beginning of the Chapter. If a UW handler does not conduct treatment activities, the UW handler does not have to read through “treatment requirements”
- \*\*Consolidates all universal waste export and import requirements to a single article.
- \*\*\* Consolidates all universal waste authorized treatment requirements to a single article.

# Electronic Waste Regulations

## Article 1 (General)

- Clarifies that the AMS ((UWED processor regulations) do not apply to destination facilities. (66273.1)
- Consolidates the applicability sections related to mercury-containing devices into one section (66273.4)
- Separates “CRT materials” into three specific UW categories
  - CRT devices are included with UWEDs (66273.3/.9)
  - CRTs (66273.6)
  - CRT glass (66273.7)

# Electronic Waste Regulations

## Article 1 (cont.)

- Amended to eliminate & add definitions (66273.9)
  - “CRT material” and “CRT material handler” are eliminated
  - “Destination facility” is amended (technical correction)
  - “Electronic device” is amended to include CRT device
  - “Large” and “small quantity handlers” are eliminated
  - “Mercury-containing device” is added
  - “Processing” is added
  - “Treatment” “treat” and “treating” are added
  - “Universal waste handler” is amended to clarify that UW handler is not the owner or operator of a destination facility

# Electronic Waste Regulations

## Article 3 (Standards for UW Management)

- Notification: 66273.32 \*\*\*
- UW Management Requirements: 66273.33\*
- Labeling/Marking: 66273.34 \*\*\*
- Accumulation Time Limits: 66273.35 \*\*\*
- Employee Training: 66273.36\*\*
- Response to Releases: 66273.37 \*\*\*
- Off-site Shipments: 66273.38 \*\*\*
- Tracking UW Shipments: 66273.30 \*\*\*

\* Will discuss section by section

\*\* Will address in subsequent slide

\*\*\* No substantive changes

# Electronic Waste Regulations

Article 3 (Standards for UW Management) cont.

## **Employee Training (66273.36)**

- Requires universal waste handlers to inform all persons (e.g., employees, volunteers, and prisoners) handling/managing UW of proper handling and emergency procedures appropriate for the waste handled at the facility;
- Requires all persons handling/managing UW to receive training on hazards associated with UW.  
Examples: leaded glass (CRT devices) or mercury (fluorescent lamps).
- Requires all persons handling/managing UW to understand requirements of Chapter 23  
Labeling requirements, tracking, responding to releases, etc.
- Requires all persons handling/managing UW to have annual review of training.
- Requires training records be kept for at least three years.

# Electronic Waste Regulations

- Article 4: Moved all requirements for exporting and importing universal wastes previously in Articles 2, 3, 4, 6, and 7 to a single article.
  - No changes to existing requirements (except splitting out CRT materials by specific waste types (e.g., UWEDs, CRTs and CRT glass))
- Article 5: UW Transporters
  - No changes to existing requirements
- Article 6: Destination Facilities
  - No change except to clarify that a person authorized under chapter 14, 15, 16, 18, 20 and 22 (e.g. standardized or RCRA hazardous waste facility permit) is a “destination facility” for any UW treated or recycled at that location.

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.72 – Specifies the requirements for UW handlers who conduct dismantling-type activities.
  - Dismantling activities include:
    - Dismantling electronic devices [66273.72(a)]
    - Removing yokes from CRTs [66273.72(a)]
    - Removing mercury ampules/switches [66273.72(b)]
    - Draining liquid mercury [66273.72(c)]



# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.72 – Specifies the requirements for UW handlers who conduct dismantling-type activities (cont.):
    - Dismantlers of UWEDs and CRTs must:
      - Comply with notification and reporting requirements specified in 66273.74(a)(b) and (d)
      - Comply with the waste management standards specified in 66273.72(a)(3)
  - **There are NO substantive changes to the existing notification, reporting, recordkeeping, or treatment standards; they are just moved to one location.**

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.72 – Specifies the requirements for UW handlers who conduct dismantling-type activities (cont.):
    - Dismantlers of mercury-containing devices
      - Comply with recordkeeping requirements specified in 66273.74(c)
      - Comply with the waste management standards specified in 66273.72(b) or (c)
- **There are NO substantive changes to existing recordkeeping or treatment standards.**

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.73 – Specifies the requirements for UW handlers who conduct processing activities.
  - Processing activities include:
    - Processing UWEDs and generating scrap metal treatment residuals [66273.73(a)]
    - Processing UWEDs and generating finely divided residuals (e.g., baghouse/filter dust treatment residuals) [66273.73(b)]
    - Processing CRTs and generating “UW CRT” glass treatment residuals [66273.73(c)]

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.73 – Specifies the requirements for processing activities (cont.):
    - Processors of UWEDs that generate only scrap metal:
      - Comply with notification and reporting requirements specified in 66273.74(a)(b) and (d)
      - Comply with the waste management standards specified in 66273.76
  - **There are NO substantive changes to existing notification, reporting, recordkeeping, or treatment standards.**

# Electronic Waste Regulations

## ■ Article 7 AUTHORIZATION REQUIREMENTS

- 66273.73 – Specifies the requirements for processing activities (cont.):
  - Processors of UWEDs that generate baghouse/filter dust:
    - Comply with notification and reporting requirements specified in 66273.74(a)(b) and (d)
    - Comply with the financial requirements specified in 66273.75
    - Comply with the waste management standards specified in 66273.76
- **There are NO substantive changes to existing notification, reporting, recordkeeping, or treatment standards; they are just relocated to one location.**

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.73 – Specifies the requirements for processing activities (cont.):
    - Processors of CRTs that generate CRT glass:
      - Comply with notification and reporting requirements specified in 66273.74(a)(b) and (d)
      - Comply with the financial requirements specified in 66273.75
      - Comply with the waste management standards specified in 66273.76
- **There are NO substantive changes to existing notification, reporting, recordkeeping, or treatment standards.**

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.75 – Financial Requirements (cost estimate for closure, financial assurance, and financial responsibility for liability)
  - Section revised to provide UW recyclers better guidance on:
    - Closure plan –must be submitted to DTSC and must:
      - Identify processing units/area (floor plan with units/areas identified)
      - Describe closure activities
      - Describe/identify sampling areas (number of samples and where they would be taken)
      - Estimate maximum inventory
      - Modify closure plan when significant changes occur at the facility
        - Capacity increase greater than 10 percent
        - At least 60 days prior to these changes

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.75 – Financial Requirements (cost estimate for closure, financial assurance, and financial responsibility for liability).
  - Section revised to provide UW recyclers better guidance on:
    - Cost Estimate for Closure
      - Specifies the costs for decontamination, removal, sampling & analyses, based on the closure plan
      - Cannot consider salvage value of materials/equipment
      - Cannot consider zero costs for hazardous wastes, universal wastes, or non hazardous wastes
      - Based on third party estimates
      - Must be adjusted annually
      - Must be adjusted with changes to closure plan



# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.75 – Financial Requirements (cost estimate for closure, financial assurance, and financial responsibility for liability)
  - Section revised to provide UW recyclers better guidance on:
    - Financial Responsibility for Liability and Financial Assurance
      - Financial Liability: **No change to existing requirements.**
      - Financial Assurance: **No changes to the choice of mechanisms to fund financial assurance.**

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.75 – Financial Requirements (cost estimate for closure, financial assurance, and financial responsibility for liability)
  - Section revised to provide UW recyclers better guidance on:
    - Financial Responsibility for Liability and Financial Assurance (cont.)
      - **Specifies requirements for closure and release of financial assurance:**
      - Submittal of sampling data
      - Submittal of a letter certifying closure
      - Inspection by DTSC verifying closure

# Electronic Waste Regulations

- Article 7 AUTHORIZATION REQUIREMENTS
  - 66273.76 – Management Standards for Universal Waste Handlers Who Process Universal Wastes
  - **There are NO substantive changes to existing treatment standards.**

## Electronic Waste Regulations

QUESTIONS/COMMENTD??!!

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